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09/913,725	08/17/2001	Shigeru Yano	018793-251	3808

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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/913,725
Filing Date: August 17, 2001
Appellant(s): YANO ET AL.

George F. Lesmes
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 06/18/2004.

(1) Real Party in Interest

A statement identifying the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

Appellant's brief includes a statement that there are no related appeals or Interferences.

(3) Status of Claims

The statement of the status of the claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Invention

The summary of invention contained in the brief is correct.

(6) Issues

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that the claims 1, 2 and 5-7 stand or fall together.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

6,284,828	TAKAYAMA	9-2001

Translation of JP 11-158305, "Porous Film and Its Production," Yano et al, June 15, 1999.

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 2, and 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 11-158305 as evidenced by Takayama (US 6,284,828).

The page numbers referred to below correspond to those of the English translation of the Japanese Patent JP 11-158305. JP'305 discloses a porous film being formed from a resin composition containing (A) 25 to 50 parts by weight of polyolefin resin that includes 75 to 98 wt% of linear low density polyethylene and 2 to 25 wt% of branched low density polyethylene and (B) 75 to 50 parts by weight of an inorganic filler and 0.5 to 10 parts by weight of a lubricant (abstract). JP'305 teaches the porous film having the moisture vapor transmission, uniformity of thickness, and thickness meeting the specific ranges required by the claims (page 4, [0025]). JP'305 does not specifically disclose a liquid ethylene-alpha-olefin oligomer having been used as a lubricant in the resin composition. Takayama teaches a polyacetal resin composition comprising a polyacetal resin, a polyolefin resin, an inorganic filler and a lubricant that includes a liquid ethylene-alpha-olefin oligomer and ethylenebissteramide in the amount of 0.5 to 5 parts by weight based on 100 parts by weight of the resin composition. The lubricant is used for improved dispersibility and processability of the composition (abstract, column 5, lines 31-35, column 8, lines 10-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ethylene-alpha-olefin oligomer singly or in combination with the

ethylenebissteramide disclosed in JP'305 motivated by the desire to obtain the porous film with improved dispersibility and processability and thereby facilitating the preparation of the film. This is important to the expectation of successfully practicing the invention of JP'305 and thus suggesting the modification.

It appears that Takayama and Appellants use the liquid ethylene-alpha-olefin oligomer as a lubricant; therefore, it is the examiner's position that the viscosity of the ethylene-alpha-olefin oligomer would be substantially, inherently present. Like material has like property. Products of identical chemical composition can not have mutually exclusive properties. This is in line with ***In re Spada***, 15 USPQ 2d 1655 (1990). The porous film of JP'035 as modified by Takayama is produced by the same process and formed from the same resins having composition similar to that of the present invention. The porous film has the moisture vapor transmission, thickness and uniformness of thickness meeting the specific ranges required by the claims. Thus, it is not seen that the porous film would have performed differently than that of the present invention in terms of the ratio of the rigidity to the thickness and the ratio of the extrudation start time to the thickness so as to enable the film to meet the moisture vapor transmission, thickness and uniformness of thickness as recited in the claims.

(11) Response to Argument

Appellants argued that there is nothing disclosed in Takayama '828 which suggests that the presence of the lubricants has any beneficial effects on the

polyolefin resin component. The lubricants are designed to improve the molding characteristics of the polyacetal resin compositions, not the properties of the polyolefin. Therefore, those skilled in the art would not be motivated to look to the disclosure of Takayama '828 which is concerned with solving problems associated with improving friction and abrasion resistance of molded polyacetal resin compositions. The examiner disagrees. The lubricants in Takayama '828 are designed not only to improve of friction and abrasion resistance of molded polyacetal resin compositions as argued by Appellants but also to improve the disperability, molding processabilities of the composition (abstract, column 5, line 28). This is exactly the solution to problems with which the JP'305 reference is concerned. Takayama teaches a polyacetal resin composition comprising a polyacetal resin, a polyolefin resin, an inorganic filler and a lubricant that includes a liquid ethylene-alpha-olefin oligomer and ethylenebissteramide in the amount of 0.5 to 5 parts by weight based on 100 parts by weight of the resin composition (abstract). The lubricant is used for improved dispersibility and processability of the composition (abstract, column 5, lines 31-35, column 8, lines 10-15). This demonstrates that this lubricant is functional in compositions containing polyolefins. Given that JP'305 employs a lubricant, substitution of an improved variety does not seem impractical. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the ethylene-alpha-olefin oligomer singly or in combination with the ethylenebissteramide disclosed in JP'305 motivated by the desire to obtain the

porous film with improved dispersibility and processability and thereby facilitating the preparation of the film. It appears that the molded product disclosed in the JP'305 reference has a composition similar to the composition of the Takayama invention. Both compositions comprise a polyolefin resin, an inorganic filler and a lubricant. The Takayama reference discloses the use of the liquid ethylene-alpha-olefin oligomer to facilitate the preparation and the processability of the molded composition. The polyolefin resin was used with a small amount in the polyacetal resin composition as pointed out by Applicant. However, it is noted that the reference disclosure evidences that polyolefin resin is compatible with liquid ethylene-alpha-olefin oligomer. Accordingly, there are no reasons why such a lubricant could not have been used in combination with the porous polyolefin film for the improvement of the disperability and processability of the film. In addition, it appears that the ethylenebissteramide of the JP'305 reference is a lubricant and the oligomer of the Takayama reference is also a lubricant. Both references evidence that such lubricants are known to be used in the polyolefin containing compositions and as such, substitution of a known lubricant for another known lubricant for the purpose conventionally associated with the lubricant is considered within the level of skill in the art.

Appellants argue that one of preferred lubricants disclosed in Takayama '828 , liquid paraffin, is unsatisfactory for Appellant's purpose. The liquid paraffin used in comparative example 6 of the present invention causes the porous film having a uniformness of thickness 0.16 above the maximum value 0.15 set forth

in the claims. There is no significant difference between two values 0.15 vs. 0.16 to the exmainer. The substitution of liquid paraffin for the ethylene alpha-olefin oligomer does not significantly impact the physical properties of the porous film in terms of the uniformness of thickness. Appellants' attention is directed to comparative example 1 shown in table 3 of Appellants' specification. The castor oil was used in comparative example 1 and the porous film made therefrom had a moisture permeability, uniformness of thickness and ratio (S_T/T_H) of the rigidity relative to the thickness of the porous film within the claimed ranges. Therefore, based on the disclosure of Appellants' specification, the ethylene alpha-olefin oligomer apparently provides no technical advantage or improvement over other lubricants in attaining the requisite properties desired in porous polyolefin films. Accordingly, the examiner maintains that in the absence of unexpected results, substitution of a known lubricant for another known lubricant for the purpose conventionally associated with the lubricant is considered within the level of skill in the art.

Appellants argue that the exmainer's rationale in support of the rejections clearly is based on a hindsight reconstruction of the prior art. The compositions of Takayama '828 contain a polyolefin and an inorganic filler does not provide the requisite motivation. The arguments are not found persuasive for patentability. Takayama '828 discloses that adding the liquid alpha-olefin oligomer to the composition would improve the dispersibility and processability (abstract, column 5, lines 31-35, column 8, lines 10-15). Therefore, one of ordinary skill in the art would be motivated to use the liquid alpha-olefin oligomer in the film of the JP'305 for improved dispersibility and processability.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Hai Vo

HV
August 18, 2004

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